WIRELESS 433 MHz TEMPERATURE STATION

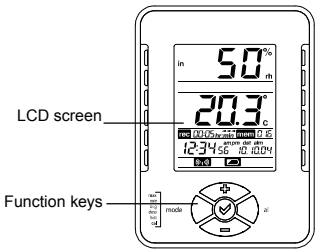
Instruction Manual

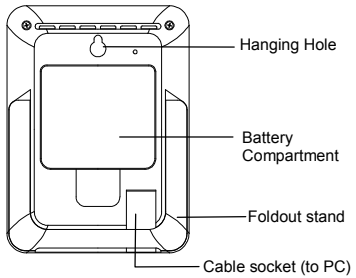
INTRODUCTION:

Congratulations on purchasing this revolutionary 433MHz temperature Station which provides advanced data-logging and data-analysis functions for up to five outdoor temperature readings. The temperature station is connectable to PC by the COM port and data importing to PC is allowed. By applying the smart software provided, user may perform data analysis and statistics conveniently in PC. With easy to use keys, this innovative product is ideal for home and professional usages.

FEATURES:

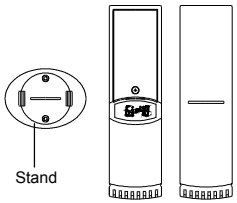
The Temperature Station





- DCF radio controlled time with manual setting option
- Time zone option ±12 hours
- Indoor and outdoor temperature display with MIN/MAX records and time of reception
- Indoor and outdoor humidity display as RH% with MIN/MAX records
- Data logging function – with adjustable recording intervals, can store up to 3000 sets of Temperature/Humidity data
- Connectable to PC (Com port) – data can be transferred to PC with the software (in CD ROM) provided
- Can receive up to 5 outdoor transmitters
- Time reception ON/OFF selectable
- Dew point temperature displayed
- Temperature & humidity High/Low alarm function
- 12/24 hour time display
- Year/ Month/ Day calendar display
- Temperature display in ºC/ ºF
- LCD contrast selectable
- Temperature and humidity calibration function
- Low battery indicator
- Table standing or wall mounting

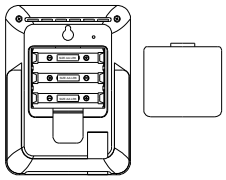
The Outdoor Temperature Transmitter (purchased seperately)



- Remote transmission of outdoor temperature and humidity to Temperature Station by 433 MHz
- Shower proof casing
- Wall mounting case
- Mounting at a sheltered place. Avoid direct rain and sunshine

HOW TO INSTALL AND REPLACE BATTERIES IN THE TEMPERATURE STATION

The Temperature Station uses 3 x AA, IEC LR6, 1.5V batteries. To install and replace the batteries, please follow the steps below:

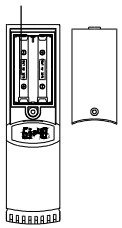


1. Insert finger or other solid object in the space at the bottom center of the battery compartment and lift up to remove the cover.
2. Insert batteries observing the correct polarity (see marking).
3. Replace compartment cover.

HOW TO INSTALL AND REPLACE BATTERIES IN THE TEMPERATURE TRANSMITTER

The Outdoor Temperature transmitter uses 2 x AA. IEC LR6, 1.5V batteries. To install and replace the batteries, please follow the steps below:

Battery compartment



1. Remove the battery cover at the front side with an appropriate screwdriver.
2. Insert the batteries, observing the correct polarity (see battery compartment marking).
3. Replace the battery cover on the unit

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BATTERY CHANGE:

User shall replace batteries of the temperature station when the battery low indicator is displayed at the LCD. If user does not replace batteries, working error may be resulted.

Note:

- After changing batteries in temperature station, there is no need for user to reset the temperature station. In fact, the temperature station can remember all transmitter information and sequence as per the pervious set-up. However, user may require to reset the desired LCD contrast, Alarm On/Off condition, Calibration value and the Clock (by re-entering the date and time manually or simply wait for the DCF time signal).
- The “Average” value display for particular channel will only be calculated from the data after battery change.
- It is recommended to replace the batteries in all units on an annual basis to ensure optimum accuracy of these units.

Please participate in the preservation of the environment. Return used batteries to an authorized depot.

SETTING UP

1. Insert batteries into the Temperature station (see “**How to install and replace batteries in the Temperature**” above). Once the batteries are in place, all segments of the LCD will light up briefly. Then the indoor temperature and humidity will be displayed. The time will be shown 0:00 and the date as 1.1.04.

Note:
If the indoor temperature and humidity are not displayed after 15 seconds, remove the batteries and wait for at least 2 minutes before reinserting them. Also check if the battery has been used up. User is recommended to use new alkaline batteries to the units.
There is a four-minute time for user to set up all transmitters one by one, after inserting batteries to the temperature station. The below steps 2 to 4 shall be completed within this 4-minute time.

2. Insert batteries to the first transmitter. The temperature station will start learning the transmitter. The outdoor Channel 1 (out 1) temperature and humidity readings will then be displayed. User may observe the outdoor channel icon appear. (If this does not happen after 3 minutes, the batteries will need to be removed from both units and reset from step 1.)
3. After the readings from the first transmitter (Channel 1) are successfully shown by the temperature station, insert batteries to the second transmitter. The outdoor “Channel 2” temperature and humidity readings will then be displayed. User may observe the outdoor channel icon appear.
4. Set up the third, fourth, and fifth transmitter (if applicable) one by one as described in the above steps.
5. Please note that the unit’s built-in memory stores not only saved readings but also any integrated transmitters on their respective channels. If after you start to use the unit not all transmitters are being received, you can manually incorporate these one by one as described at LEARNING/REMOVING A TRANSMITTER.
   To free up a used channel for a new transmitter please proceed as described at point 4.
   You can also do this for all channels at the same time by returning to the factory settings as described at CLEARING ALL DATA AND SETTINGS OF THE TEMPERATURE STATION FROM THE PERMANENT MEMORY.
   Please note that this will delete all stored data.
6. The temperature station will also try to receive the DCF time signal (radio controlled) after the transmitter signal reception.

7. If after 10 minutes, the DCF time has not been received, press and hold the OK (✓) key for 3 seconds to enter the Set up mode for manual time setting. The clock of the temperature station will automatically attempt to receive the DCF time at midnight. When this is successful, the received time will override the manually set time. The date is also updated with the received time. (Please refer also to notes on **"Radio controlled Time Reception"** and **"Manual Setting"**).

DCF-77 RADIO CONTROLLED TIME

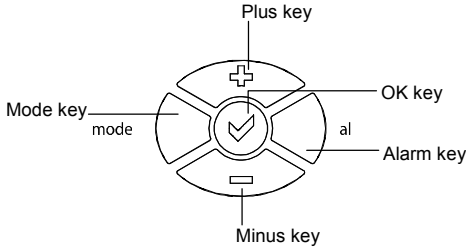
The time base for the radio controlled time is a Cesium Atomic Clock operated by the Physikalisch Technische Bundesanstalt Braunschweig which has a time deviation of less than one second in one million years. The time is coded and transmitted from Mainflingen near Frankfurt via frequency signal DCF-77 (77.5 kHz) and has a transmitting range of approximately 1,500 km. Your radio-controlled Temperature Station receives this signal and converts it to show the precise time in summer or wintertime.
The quality of the reception depends greatly on the geographic location. In normal cases, there should be no reception problems within a 1500km radius of Frankfurt.
Once the outdoor reception test period is completed, the DCF tower icon in the clock display will start flashing in the upper center. This indicates that the clock has detected that there is a radio signal present and is trying to receive it. When the time code is received, the DCF tower becomes permanently lit and the time will be displayed.
If the tower icon flashes, but does not set the time or the DCF tower does not appear at all, then please take note of the following:

- Recommended distance to any interfering sources like computer monitors or TV sets is a minimum of 1.5 - 2 meters.
- Within ferro-concrete rooms (basements, superstructures), the received signal is naturally weakened. In extreme cases, please place the unit close to a window and/ or point its front or back towards the Frankfurt transmitter.
- During nighttime, the atmospheric disturbances are usually less severe and reception is possible in most cases. A single daily reception is adequate to keep the accuracy deviation below 1 second.

FUNCTION KEYS:

Temperature Station:

There are 5 function keys in the Temperature Station:



OK key (✓)

- In normal display mode, press and hold for 3 seconds to enter the manual setting mode for the following:
  a. LCD contrast level
  b. Time zone
  c. Daylight saving time (On/ Off)
  d. Radio-controlled time reception (On/ Off)
  e. 12/ 24 hour Display
  f. Time setting (Hour and Minute)
  g. Calendar setting (Year, Month and Day)
  h. Temperature unit (°C/ °F) setting

i. Recording intervals to memory (hr:min)
j. Re-learning/ Removing channels
k. Number of channels to be saved to memory

- In view mode or alarm mode, press to go back to normal display mode

Plus (+) and Minus (–) key

- In normal display mode, press to select a channel (the indoor sensor or one of the outdoor transmitters)
- Press to make adjustment (increase or decrease) in different manual settings and alarm setting

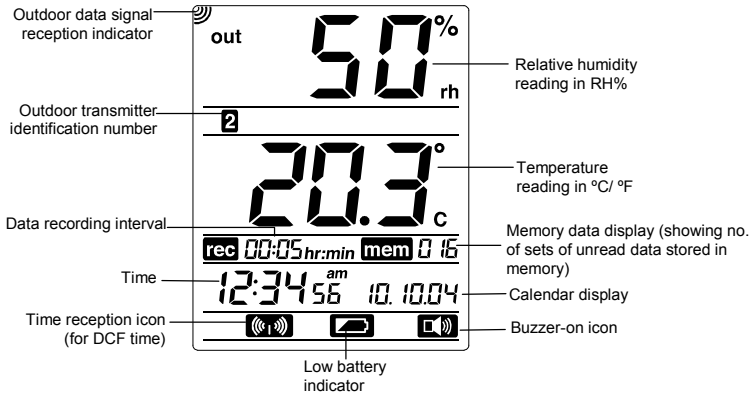
Mode key (mode)

- In normal display mode, press to toggle between the following view mode:
  a. Maximum record of a selected channel (the indoor sensor or one of the outdoor transmitters, depending on the user's selection)
  b. Minimum record of a selected channel
  c. Average humidity and temperature readings of a selected channel (over the last 100 values stored in memory)
  d. The dew point temperature of a selected channel
  e. History readings in the memory of a selected channel
  f. Calibration mode of humidity and temperature of a selected channel
- In alarm setting mode, press to activate/ deactivate the temperature and humidity alarm.
- In manual setting mode, press to go back to normal display mode
- Press and hold for 3 seconds to reset Min/ Max record of a particular channel
- Press and hold for 5 seconds to reset Min/ Max record of all channels

Alarm key (al)

- Press and hold for 3 seconds to enter the alarm setting mode.
- In alarm setting mode, press to toggle between the following settings:
  1. high humidity alarm
  2. low humidity alarm
  3. high temperature alarm
  4. low temperature alarm
- In manual setting mode, press to go back to normal display mode

LCD Screen:
The LCD screen is split into 4 sections displaying the relatively humidity, temperature, EPROM status and Time/ Date.

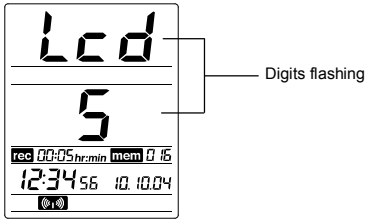


MANUAL SETTINGS:

In normal display mode, press and hold the OK key for 3 seconds to enter the manual setting mode for the following:

a. LCD contrast setting
b. Time zone setting
c. Daylight saving time On/ Off setting
d. Radio-controlled time reception On/ Off setting
e. 12/ 24 hour format setting
f. Time setting (Hour and Minute)
g. Calendar setting (Year, Month and Day)
h. Temperature unit (°C/ °F) setting
i. Recording intervals to memory (hr:min)
j. Relearning or removing a transmitter
k. Number of sets of outdoor channel to be saved to memory of temperature station

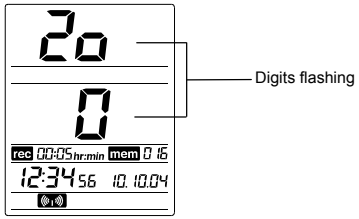
LCD CONTRAST SETTING:



The LCD contrast can be set within 8 levels, from LCD 0 to LCD7 (Default setting is “LCD 5”):

1. In normal display, press and hold the OK (✓) key until the digits “Lcd” starts flashing.
2. Use the Plus (+) and Minus (–) key to view all levels of contrast.
3. Select the desired LCD contrast. Confirm with the mode or Alarm (al) key to go back to the normal display mode.

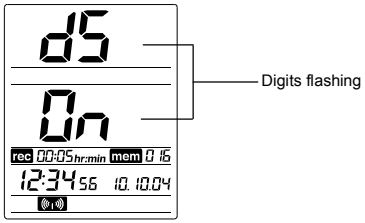
TIME ZONE SETTING:



The time zone default of the Temperature Station is “0”. To set a different time zone:

1. Press and hold the OK key until the digits “Lcd” starts flashing.
2. Press shortly the OK key one more time to enter the time zone setting. The digits “Zo” will be flashing.
3. Use the Plus and Minus key to set the time zone (-12 to 12 hr).
4. Press the Mode or Alarm key to confirm and go back to the normal display mode.

DAYLIGHT SAVING TIME SETTING

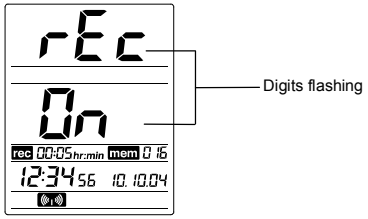


1. Press and hold the OK key until the digits “Lcd” starts flashing.
2. Press shortly the OK key two times to enter the daylight saving time setting. The digit “dS” will be flashing.
3. Use the Plus and Minus key to set the daylight saving time function to “On” or “Off” mode.
4. Press the Mode or Alarm key to confirm and go back to the normal display mode.

Note:

- The function of day night time saving is only applicable to WWVB time reception within the areas in the United States.
- “dS off” means that the feature is off and the WWVB will not change times automatically. “dS On” indicates that the feature is on and the WWVB will change times automatically.

TIME RECEPTION ON/OFF SETTING:



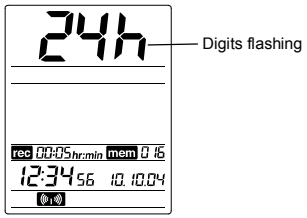
In area where reception of the DCF time is not possible, the DCF time reception function can be turned OFF. The clock will then work as a normal Quartz clock. (Default setting is ON).

1. Press and hold the OK key until the digits “Lcd” starts flashing.
2. Press and release the OK key three times to enter the time reception time setting. The digit “rEc” will be flashing.
3. Use the Plus and Minus key to set the time reception function to on or off mode.
4. Press the Mode or Alarm key to confirm and go back to the normal display mode.

Note:

If the Time Reception function is turn OFF manually, the clock will not attempt any reception of the DCF time as long as the Time Reception OFF function is activated. The time reception icon and the “DCF” icon will not be displayed on the LCD

12/24-HOUR FORMAT SETTING:

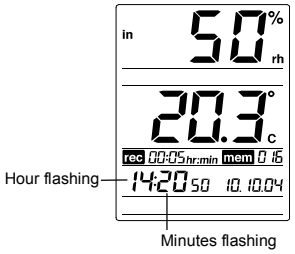


The time display can be selected to show hours in 12-hour or 24-hour settings. (Default 24-Hour)

1. Press and hold the OK key until the digits “Lcd” starts flashing.
2. Press and release the OK key four times to enter the time format setting. The digit “24h” will be flashing.
3. Use the Plus and Minus key to set the time shown in 12-hour or 24-hour format.
4. Press the Mode or Alarm key to confirm and go back to the normal display mode.

MANUAL TIME SETTING:

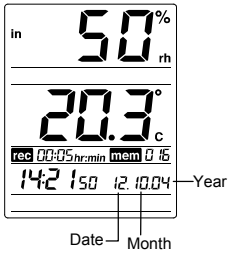
In case the Temperature Station cannot detect the DCF-signal (for example due to disturbances, transmitting distance, etc.), the time can be manually set. The clock will then work as a normal Quartz clock.



1. Press and hold the OK key until the digits “Lcd” starts flashing.
2. Press and release the OK key five times to enter the hour setting. The hour digit in the time LCD will be flashing.
3. Use the Plus and Minus key to set the hour.
4. Press the OK key one more time to confirm the hour and advance to the minute setting. The minute digit will be flashing.
5. Use the Plus and Minus key to set the minute
6. Press the Mode or Alarm key to confirm and go back to the normal display mode.

Note: The unit will still try and receive the signal every day despite it being manually set. When it does receive the signal, it will change the manually set time into the received time. During reception attempts the DCF tower icon will flash. If reception has been unsuccessful, then the DCF tower icon will not appear but reception will still be attempted the following hour.

CALENDAR SETTING:

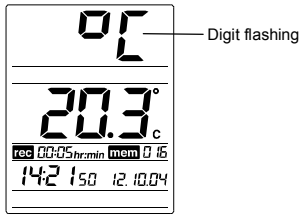


The date default of the Temperature Station is 1. 1. in the year 2004. Once the radio-controlled time signals are received, the date is automatically updated. However, if the signals are not received, the date can also be set manually.

1. Press and hold the OK key until the digits “Lcd” starts flashing.
2. Press and release the OK key seven times to enter the year setting. The year digit in the date LCD will be flashing.
3. Use the Plus and Minus key to set the year.

4. Press the OK key one more time to confirm the year and advance to the month setting. The month digit will be flashing.
5. Use the Plus and Minus key to set the month.
6. Press the OK key one more time to confirm the month and advance to the day setting. The day digit will be lashing.
7. Use the Plus and Minus key to set the day.
8. Press the Mode or Alarm key to confirm and go back to the normal display mode.

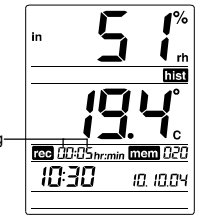
TEMPERATURE UNIT SETTING (°C/ °F):



The temperature display can be selected to show temperature data in °C or °F (Default °C).

1. Press and hold the OK key until the digits “Lcd” starts flashing.
2. Press and release the OK key ten times to enter the temperature unit setting. The “°C” digit will be flashing.
3. Use the Plus and Minus key to set the unit of temperature in °C or °F.
4. Press the Mode or Alarm key to confirm and go back to the normal display mode.

RECORDING INTERVAL (hr:min) SETTING



The time intervals at which the temperature and humidity data saved to memory can be set to one of the following:
1-minute; 5-minute; 10-minute; 15-minute; 20-minute; 30-minute; 1-hour; 2-hour; 4-hour; 6-hour; 8-hour; 12-hour or 24-hour.
Your appliance has been developed and produced to the very latest technical standards. Unfortunately, however, an error occurred in programming the time intervals.

The following intervals are out of line, as follows:

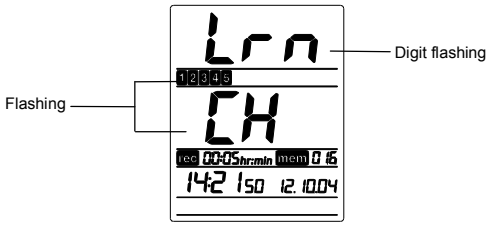
3-hour interval	Records every 4 hours
4-hour interval	Records every 6 hours
6-hour interval	Records every 8 hours
8-hour interval	Records every 12 hours
12-hour interval	Records every 24 hours

1. Press and hold the OK key until the digits “Lcd” starts flashing.
2. Press and release the OK key eleven times to enter minute setting of the recoding interval. The min in the record LCD will be flashing.
3. Use the Plus and Minus key to set the desired recording interval.
4. Press the Mode or Alarm key to confirm and go back to the normal display mode.

LEARNING/ REMOVING A TRANSMITTER (CHANNEL)

After replacement of batteries of a particular transmitter, it is necessary to learn the transmitter again in the learning mode. On the other hand, when user want to decrease the number of transmitters to be applied, he may remove the transmitter so that the data from this channel will not be displayed in the temperature station. The below procedures describe how to “re-learn” or “remove” a channel:

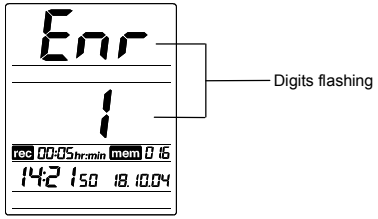
1. Press and hold the OK key until the digits “Lcd” starts flashing.
2. Press shortly the OK key twelve times to enter Learn/ Remove setting of channels. The digits “Lrn”, “CH” and the channel icons will be flashing.



3. Press Plus to get in Learn/ Remove setting of channels. The channel icon “1” will be flashing.
4. Press OK key (✓) to select another channel, if necessary (1-5).
5. Press Plus to set the selected channel to “Re-learn” state (The channel icon will flash in two places on the display), or press Minus to remove the channel (The channel icon will disappear).
6. As soon as the in two places flashing channel number disappears, the reception icon will be flashing in the top left corner. Insert the batteries in the respective transmitter.
   After a short time (1 minute at the maximum) the transmitter should be linked.
7. Repeat the above steps for further channels, if necessary.

Note: Once a channel is removed, the temperature station will be “disconnected” form the channel and the data transmitted by this channel cannot be viewed at the temperature station.

THE NUMBER OF OUTDOOR TRANSMITTERS TO BE SAVED INTO THE SYSTEM MEMORY



Up to 5 outdoor transmitters can be received by the temperature station. User may decide the number of transmitter data to be save to the permanent memory of the temperature station. For instant, user may apply 5 transmitters but set to save the data only from particular 3 transmitters. To set the number of transmitters whose data are to be saved in the system memory:

1. Press and hold the OK key until the digits “Lcd” starts flashing.
2. Press and release the OK key thirteen times to enter transmitter number setting. The digit “Enr” will be flashing.
3. Use the Plus and Minus key to select the number of transmitter to be used with the temperature station (up to 5 transmitters)
4. Press the OK key one more time to confirm and go back to the normal display mode.

Note:

- If user has set “Enr = 2” and five transmitters are on, the data only from channel No. 1 and 2 will be saved in the system memory. Similarly, if user set “Enr = 4”, data from channels No. 1 to 4 will be saved.
- On the other hand, if user has initially applied 5 transmitters but then remove the Channel 3, the temperature station will thereafter display “--.-“ for Channel 3. And if the user has chosen “Enr = 3, then data from Channel 1 to 3 will be stored in the memory, instead of Channel 1, 2 and 4. The data stored in the memory for channel 3 will be “--.-“.
- After the “Enr” number has been changed, the history data will be cleared and “mem” will be rest to “000”.

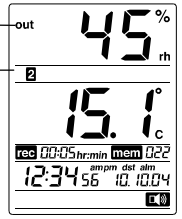
TO EXIT THE MANUAL SETTING MODE

Press the Mode key or Alarm key to exit the manual setting mode anytime during the manual setting. The mode will return to the normal time display.

TOGGLING BETWEEN DIFFERENT CHANNELS (INDOOR AND OUTDOOR CHANNELS):

1. Press the Plus or Minus key to toggle between the Temperature and humidity readings of the indoor channel and the outdoor transmitter channel(s). The channel identification icon (“in”, “out 1”, “out 2”, “out 3” …) will be displayed at the upper right screen indicating that the particular channel is now being selected.

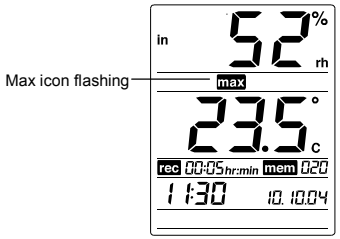
The temperature and humidity readings of Outdoor transmitter No. 2 is now shown



VIEWING VARIOUS TYPE OF TEMP/HUMDITY READINGS OF A SELECTED CHANNEL:

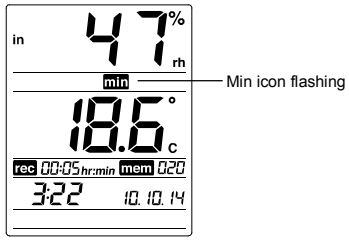
After a particular channel (the indoor sensor or one of the outdoor transmitters) has been selected by pressing the Plus or Minus key, the following modes of data may be viewed by user:

a. The Max temperature and Max humidity



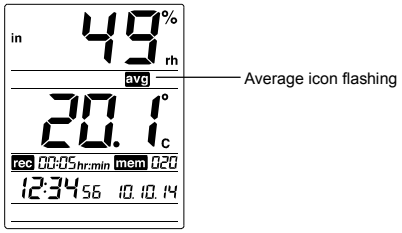
In normal display mode, press the mode key once. The maximum temperature and maximum humidity measured by the channel, and the date and time of the maximum temperature recorded will be displayed. The “max” icon will be flashing.

b. The Min temperature and Min humidity



In normal display mode, press the mode key two times. The minimum temperature and humidity measured by the channel, and the date and time of the minimum temperature recorded will be displayed. The “min” icon will be flashing.

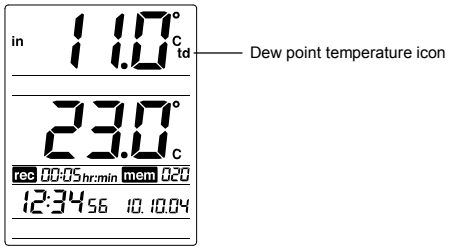
c. The average value of the last 100 sets reading



In normal display mode, press the mode key three times. The average temperature and humidity value of the data which have been saved in the system memory will be displayed. The “avg” icon will be flashing. If the channel is not set to be saved in the system memory, no average value will be estimated and “--.-“ will be shown.

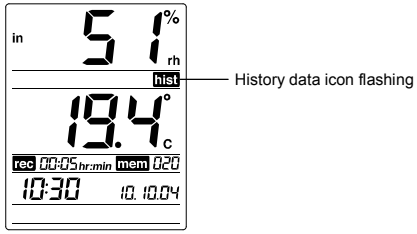
Note: The “Average” value displayed for particular channel will be calculated from only the new data being recorded after battery change.

d. The dew point temperature



In normal display mode, press the mode key four times. The dew point temperature will be displayed next to the flashing “td” icon.

e. The history data sets of temperature and humidity



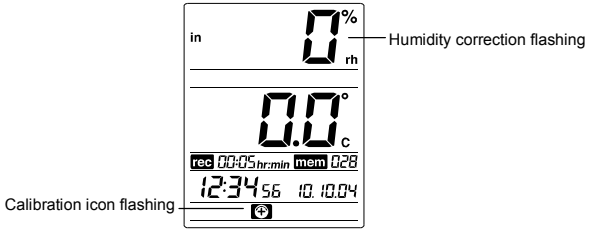
In normal display mode, press the mode key five times. The “hist” icon will be flashing and the last recorded temperature and humidity reading with the time of record will be displayed.
By pressing the – key, the previous sets of readings which were measured at the user-selected recording intervals may be viewed.
If the channel is not set to be saved in the system memory, no history values will be displayed and “--.-“ will be shown on LCD.

CALIBRATION OF TEMPERATURE AND HUMIDITY READING

The temperature station allows user to calibrate the displayed temperature and humidity readings by a better reference. User may enter the correction of temperature reading and humidity reading in the range of ±2°C and ±10% respectively.

To calibrate the humidity reading:

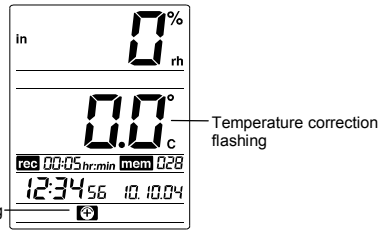
1. Press the Plus or Minus key to select a channel (the sensor at the temperature station or one of the outdoor transmitters)
2. Press shortly the mode key for six times. The calibration icon will be flashing.
3. Press the ok key once. The humidity digits will be flashing.



4. Press the Plus or Minus key to set the desired correction for the humidity reading. Then press the Alarm key to exit or the OK key to advance to the calibration of temperature reading.

To calibrate the temperature reading:

1. Press the Plus or Minus key to select a channel (the sensor at the temperature station or one of the outdoor transmitters)
2. Press shortly the Mode key for six times. The calibration icon will be flashing.
3. Press shortly the OK key two times. The temperature digits will be flashing.



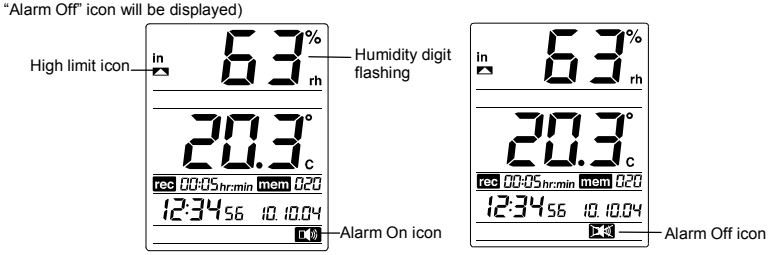
4. Press the Plus or Minus key to set the desired correction for the humidity reading. Then press the Alarm key to exit.

ALARM PROGRAMMING FOR INDOOR/ OUTDOOR TEMPERATURE AND HUMIDITY

The weather station will allow users to set a range of specific alarms to meet specific temperature and humidity conditions set by the user.
For example, user may set the high and low temperature alarm point at 20 and 30 °C respectively. Then the alarm will sound once the temperature is higher than 30.0 or lower than 20.0 °C.

To set the high humidity alarm:

1. In normal display, press the Plus or Minus key to select a channel (the sensor at the temperature station or one of the outdoor transmitters)
2. Press and hold the Alarm key for about 3 second to enter high humidity alarm setting. The humidity digits, high limit icon and the alarm icon will start flashing.
3. Press the Mode key to select to “activate” or “deactivate” the high humidity alarm. (“Alarm On” or “Alarm Off” icon will be displayed)



4. Press the Plus or Minus key to set the desired value of the high humidity alarm threshold point.
5. Press OK key to return to the normal display or press the Alarm key to enter the low humidity alarm setting.

To set the low humidity alarm:

1. In normal display, press the Plus or Minus key to select a channel (the sensor at the temperature station or one of the outdoor transmitters)

2. Press and hold the Alarm key for about 3 second to enter high humidity alarm setting. Then press the Alarm key shortly one more time to enter the low humidity alarm setting. The humidity digits, low limit icon and the alarm icon will start flashing.
3. Press the Mode key to select to “activate” or “deactivate” the low humidity alarm. (“Alarm On” or “Alarm Off” icon will be displayed)
4. Press the Plus or Minus key to set the desired value of the low humidity alarm point.
5. Press OK key to return to the normal display or press the Alarm to enter the high temperature alarm setting.

To set the high temperature alarm:

1. In normal display, press the Plus or Minus key to select a channel (the sensor at the temperature station or one of the outdoor transmitters)
2. Press and hold the al key for about 3 second to enter high humidity alarm setting. Then press shortly the Alarm key two more times to enter the high temperature alarm setting. The temperature digits, high limit icon and the alarm icon will start flashing.
3. Press the Mode key to select to “activate” or “deactivate” the high temperature alarm. (“Alarm On” or “Alarm Off” icon will be displayed)
4. Press the Plus or Minus key to set the desired value of the high temperature alarm point.
5. Press OK key to return to the normal display or press the Alarm to enter the low temperature alarm setting.

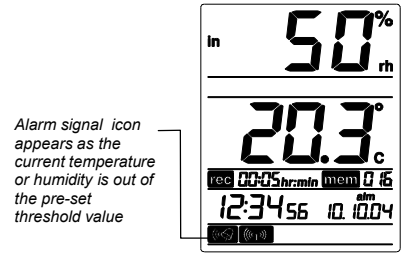
To set the low temperature alarm:

1. In normal display, press the Plus or Minus key to select a channel (the sensor at the temperature station or one of the outdoor transmitters)
2. Press and hold the Alarm key for about 3 second to enter high humidity alarm setting. Then press shortly the Alarm key three more times to enter the low temperature Alarm setting. The temperature digits, low limit icon and the alarm icon will start flashing.

3. Press the Mode key to select to “activate” or “deactivate” the low temperature alarm. (“Alarm On” or “Alarm Off” icon will be displayed)
4. Press the Plus or Minus key to set the desired value of the low temperature alarm point.
5. Press OK key to return to the normal display.

Note:

- The alarm allow user to set individually the high or low threshold upon his requirements. For example, the user can set the thresholds for temperature to 35°C (high) and 25°C (low), while only activating high temp alarm and deactivating low temp alarm. In this case, the alarm will not trigger when temp. is lower than 25°C yet will trigger when temp is higher than 35.0°C.
- When the temperature or humidity is sensed to be out of the pre-set threshold value, the alarm will sound and the alarm icon will be present on LCD. User may press any key to stop the buzzer. If no key is pressed, the buzzer will beep for two minutes yet the alarm signal icon will still be flashing until the temperature or humidity is within the pre-set range again.
- Once an alarm is triggered, the display switches to the latest triggered channel. In addition, the high/ low limit icon and IN/ OUT icon is flashing as long as the alarm condition is met.
- If an alarm is triggered, the alarm icon will be flashing until the temperature and humidity is back to the conditions within the preset threshold values.



CLEAR DATA IN THE TEMPERATURE STATION

CLEARING THE MAX/MIN TEMPERATURE AND HUMIDITY DATA OF A PARTICULAR CHANNEL

To clear the max/min data of a channel:

1. Press the Plus or Minus key to select a channel.
2. Press and hold the Mode key for 3 second. The maximum and minimum temperature/ humidity data and the time of record will be reset to the current value.

CLEARING THE MAX/MIN TEMPERATURE AND HUMIDITY DATA OF ALL CHANNELS

To clear the max/min data of all channels:

1. Press and hold the Mode key for 5 second. The maximum and minimum temperature/ humidity data and the time of record will be reset to the current value.

CLEARING ALL STORED TEMPERATURE AND HUMIDITY DATA (FROM TEMPORARY MEMORY OF THE TEMPERATURE STATION)

The on-going temperature and humidity data are stored at the ring buffer memory (a temporary memory area where the latest data will displace the oldest data once the memory capacity is reached). To clear this memory, the following step shall be performed:

1. Press both the Plus key and OK key and hold for about 2 seconds. Only the temperature and humidity records of all channels (indoor and the outdoor channels) will be cleared. So the average and history data will no longer exist. The memory display will show “mem 000” after the data has been cleared.

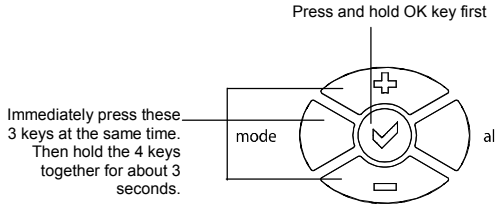
Note: The maximum/ minimum temperature and humidity data will not be cleared.

CLEARING ALL DATA AND SETTINGS OF THE TEMPERATURE STATION FROM THE PERMANENT MEMORY (FACTORY RESET)

The factory reset needs to be launched if malfunction on the temperature station occurs.
To reset the temperature station:

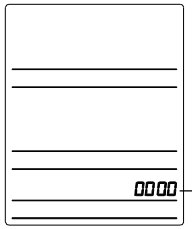
1. Ensure that the unit is in normal display, not displaying max, min, or history. And the unit is not making any DCF or HF reception.
2. Press the OK, Plus, Minus and Mode key and hold for 3 seconds in following orders. The OK key must be pressed and hold first, then the other three key must be pressed and hold also within 1s. Then hold the four keys for 3 seconds until you see running digits at bottom right area of LCD.

Note: If the reset is not successfully initiated, user shall try from above step 1. again

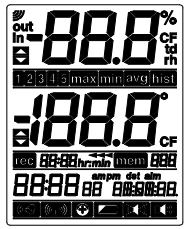

Press and hold OK key first
Immediately press these 3 keys at the same time. Then hold the 4 keys together for about 3 seconds.
mode
al

3. The running digits will be displayed for about 6 minutes, followed by the full segment display. User is then required to remove and re-insert batteries to complete the restart the unit.

Note: All data in temperature station will be cleared after the factory reset. The permanent memory of the temperature station will be reset and all the data (of all channels) stored. Also, all the previous settings of the station including the date and time, alarm, calibration settings will be cleared.



The display will show some running digits when the temperature station is reset.



Full segment will be displayed- user need to remove and re-insert batteries to restart the temperature station.

After batteries are re-inserted, the station will automatically launch the learn mode. The signal receipt indicator will be displayed. User needs to set again the temperature station for the desired application. (See **"SETTING UP"** in previous clause)

Note:

- If the battery level is low, the digits "No EPr" may be displayed on LCD after resetting, indicating that the power is too low for the temperature station to function normally. In this case, the batteries shall be replaced.
- User is recommended to upload and save all the useful data to PC (if possible) before performing the factory reset.

USING THE TEMPERATURE STATION WITH PC

With the aid of the software supplied, the temperature station may provide the following additional functions to user.

1. Importing data from temperature station to PC
2. Printing the history file

Procedures to install the software to PC and application of the software are described in the user manual of the PC software.

ABOUT THE OUTDOOR TRANSMITTER (PURCHASED SEPARATELY)

The range of the Temperature transmitter may be affected by the temperature. At cold temperatures the transmitting distance may be decreased. Please bear this in mind when positioning the transmitters. Also the batteries may be reduced in power for the Temperature transmitter.

CHECKING FOR 433MHz RECEPTION

If the outdoor temperature data is not being received within three minutes after setting up (or outdoor display show "- -. -" in the outdoor section of the Temperature Station after 3 failed attempts during normal operation), please check the following points:

1. The distance of the Temperature Station or transmitters should be at least 2 meters away from any interfering sources such as computer monitors or TV sets.
2. Avoid placing the transmitters onto or in the immediate proximity of metal window frames.
3. Using other electrical products such as headphones or speakers operating on the 433MHz-signal frequency may prevent correct signal transmission or reception. Neighbors using electrical devices operating on the 433MHz-signal frequency can also cause interference.

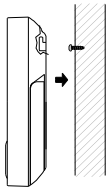
Note:

When the 433MHz signal is received correctly, do not re-open the battery cover of either the transmitter or Temperature Station, as the batteries may spring free from the contacts and force a false reset. Should this happen accidentally then reset all units (see **"SETTING UP"** above) otherwise transmission problems may occur.

The transmission range is around 100 meters from the Temperature transmitter to the Temperature Station (in open space). However, this depends on the surrounding environment and interference levels. If no reception is possible despite the observation of these factors, all system units have to be reset (see **"SETTING UP"** above).

POSITIONING THE TEMPERATURE STATION:

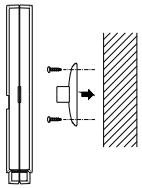
The Temperature Station provides the option of table standing or wall mounting the unit. Before wall mounting, please check that the outdoor temperature(s) can be received from the desired location(s). To wall mount:



1. Fix a screw (not supplied) into the desired wall, leaving the head extended out by about 5mm.
2. away from the base and hang the station onto the screw. Remember to ensure that it locks into place before releasing.

POSITIONING THE OUTDOOR TEMPERATURE TRANSMITTER

The Outdoor Transmitter is supplied with a holder that may be attached to a wall with the screws supplied. To attach to the wall using screws, please follow the steps below:



1. Mark the wall using a pen through the holes in the holder to obtain the exact drilling position.
2. Drill holes in the wall at the points marked.
3. Screw holder onto wall.

The mounting surface can affect the transmission range. If e.g. the unit is attached to a piece of metal, it may either reduce or increase the transmitting range. For this reason, we recommend not placing the unit on any metal surfaces or in any position where a large metal or highly polished surface is in the immediate proximity (garage doors, double glazing etc.). Before securing in place, please ensure that the Temperature Station can receive the signal from the Outdoor Temperature transmitter at the positions that you wish to situate them.

CARE AND MAINTENANCE:

- Extreme temperatures, vibration and shock should be avoided as these may cause damage to the units and give inaccurate forecasts and readings.
- When cleaning the display and casings, use a soft damp cloth only. Do not use solvents or scouring agents as they may mark the LCD and casings.
- Do not submerge the units in water.
- Immediately remove all low powered batteries to avoid leakage and damage. Replace only with new batteries of the recommended type.
- Do not make any repair attempts to the units. Return it to their original point of purchase for repair by a qualified engineer. Opening and tampering with the units may invalidate their guarantee.
- Do not expose the units to extreme and sudden temperature changes, this may lead to rapid changes in forecasts and readings and thereby reduce their accuracy.

SPECIFICATIONS:

Temperature measuring range:

Indoor : -9.9ºC to +59.9ºC with 0.1°C resolution
+14ºF to +139.8ºF with 0.2ºF resolution ("- -" displayed if outside this range)

Outdoor : -29.9ºC to +69.9ºC with 0.1°C resolution
-21.8ºF to +157.8ºF with 0.2ºF resolution ("- -" displayed if outside this range)

Humidity measuring range:

Indoor : 1% to 99% with 1% resolution ("- -" displayed if outside this range)
Outdoor : 1% to 99% with 1% resolution ("- -" displayed if outside this range)

Indoor temperature checking intervals : Every 15 seconds
Indoor humidity checking intervals : Every 20 seconds
Outdoor temperature checking interval : Every 5 minutes
Outdoor humidity checking interval : Every 5 minutes
Transmission range : up to 100 meters (open space)

Maximum number of transmitters that can be used: 5

Power consumption: (alkaline batteries recommended)

Temperature Station : 3 x AA, IEC LR6, 1.5V
Transmitter : 2 x AA, IEC LR6, 1.5V

Dimensions (L x W x H):

Temperature Station : 94 x 35 x 127 mm
Transmitter (purchased separately) : 75 x 55 x 164 mm

LIABILITY DISCLAIMER

- The electrical and electronic wastes contain hazardous substances. Disposal of electronic waste in wild country and/or in unauthorized grounds strongly damages the environment.
- Please contact your local or/and regional authorities to retrieve the addresses of legal dumping grounds with selective collection.
- All electronic instruments must from now on be recycled. User shall take an active part in the reuse, recycling and recovery of the electrical and electronic waste.
- The unrestricted disposal of electronic waste may do harm on public health and the quality of environment.
- As stated on the gift box and labeled on the product, reading the “User manual” is highly recommended for the benefit of the user. This product must however not be thrown in general rubbish collection points.
- The manufacturer and supplier cannot accept any responsibility for any incorrect readings and any consequences that occur should an inaccurate reading take place.
- This product is designed for use in the home only as indication of the temperature.
- This product is not to be used for medical purposes or for public information.
- The specifications of this product may change without prior notice.
- This product is not a toy. Keep out of the reach of children.
- No part of this manual may be reproduced without written authorization of the manufacturer.

R&TTE Directive 1999/5/EC

Summary of the Declaration of Conformity : We hereby declare that this wireless transmission device does comply with the essential requirements of R&TTE Directive 1999/5/EC.